

## REMARKS/ARGUMENTS

### **Claim Amendments**

The Applicant has amended claims 1, 19, 14, 16-17 and 19-25. Applicant respectfully submits no new matter has been added. Accordingly, claims 1-25 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

### **Examiner Objections - Claims**

Claims 20 and 21 were objected to because of informalities. The Applicant appreciates the Examiner's thorough review of the claims. The Applicant has amended the claims as suggested by the Examiner in order to correct the informalities. The Examiner's consideration of the amended claims is respectfully requested.

### **Claim Rejections – 35 U.S.C. § 102(b)**

Claims 1-3, 9-11, 16-18, and 22 USC 102(b) as being anticipated by US Patent No. 5,748,901 to Afek et al. The Applicant respectfully traverses the rejection of these claims.

The Afek reference provides flow control wherein switches in a large computer network dynamically measure the switches unused link capacity and signal sessions that require higher rates to reduce the sessions' rates to accommodate the unused link capacity. The Applicant's invention coordinates a Radio Resource Management (RRM) function with an Active Queue Management (AQM) function in order to allocate resources in a packet transmission network. The Applicant respectfully directs the Examiner's attention to amended claim 1.

1. (Currently Amended) A method for resource allocation in a packet transmission network including at least one link comprising, the following steps:

coordinating functions of Radio Resource Management (RRM) and of Active Queue Management (AQM);

the RRM function detecting link congestion and determining whether to allocate more link capacity; and

allocating more link capacity if possible, otherwise  
signaling results of the RRM determination to the AQM function, the  
AQM function alleviating the link congestion if extra bandwidth is needed  
or taking no action if extra bandwidth is not needed. (emphasis added)

The Applicant respectfully submits that the Afek reference fails to coordinate the RRM function with the AQM function so that if the RRM function is unable to allocate more link capacity the AQM function can provide extra bandwidth if needed.

The Afek reference activates a Random early detection, a "selective RED" function (AQM type function) where "...the TCP/IP header is modified to include a field that contains the current rate of the source..." (Col. 10, line 56-57). The standard RED helps a router avoid congestion wherein "...packets are dropped or Source Quench messages are sent when the queue length at a link of the router exceeds a certain threshold." (Col. 4, line 59-61). In both cases, the RED function utilizes modification of TCP/IP headers to help reduce queue lengths at a router (Col 4, line 63-65).

On the other hand the Applicant's current invention utilizes coordination between a Radio Resource Management function and the AQM function. RRM determines link congestion and if the RRM function has no bandwidth to allocate, then the RRM function signals the AQM to alleviate the congestion, (Page 12, line 12-21), thus coordinating between the RRM and AQM functions. As noted above the Afek reference does not coordinate between management functions, it reads TCP/IP headers to queue lengths. This being the case, the Applicant respectfully submits that the Afek reference does not disclose the coordination feature of claim 1 and thus, does not anticipate amended claim 1. Claim 16 is analogous to claim 1 and contains similar limitations and the Applicant respectfully requests the withdrawal of independent claims 1 and 16 and the respective dependent claims -3, 9-11, 17-18 and 22.

#### **Claim Rejections – 35 U.S.C. § 103 (a)**

Claims 4 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,748,901 to Afek et al, in view of US Patent No. 6,480,911 to Lu.

The Applicant has amended claims 1 and 16 to better define the intended scope of the claimed invention.

Claims 4 and 19 depend from claims 1 and 16 respectively and contain the same novel and inventive limitations as claim 1 and 16. As noted above the Afek reference does not disclose coordination between the RRM and the AQM. The Lu reference fails to supply the missing limitations in claims 1 and 16. This being the case, the Applicant respectfully requests the allowance of claims 4 and 19.

Claims 5, 6, 13, 20 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,748,901 to Afek et al, in view of publication "Random Early Detection Gateways for Congestion Avoidance", by S. Floyd and V. Jacobson (IEEE/ACM Transactions on Networking, vol. 1, no. 4, pg. 397-413, August 1993). The Applicant has amended claims 1 and 16 to better define the intended scope of the claimed invention.

Claims 5, 6, 13, 20 and 21 depend from claims 1 and 16 respectively and contain the same novel and inventive limitations as claim 1 and 16. As noted above the Afek reference does not disclose coordination between the RRM and the AQM. The Floyd and Jacobson reference fails to supply the missing limitations in claims 1 and 16. This being the case, the Applicant respectfully requests the allowance of claims 5, 6, 13, 20 and 21.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,748,901 to Afek et al, in view of US Patent Application Publication No. 2005/0053081 A1 to Andersson et al. The Applicant has amended claims 1 and 16 to better define the intended scope of the claimed invention and respectfully traverses the rejection of these claims.

Claims 7 and 8 depend from claim 1 and contain the same novel and inventive limitations as claim 1. As noted above, the Afek reference does not disclose coordination between the RRM and the AQM. The Andersson reference fails to supply

the missing limitations in claims 1 and 16. This being the case, the Applicant respectfully requests the allowance of claims 7 and 8.

Claims 12 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,748,901 to Afek et al, in view of US Patent No. 7,193,966 B2 to Gupta et al. The Applicant has amended claims 1 and 16 to better define the intended scope of the claimed invention and respectfully traverses the rejection of these claims.

Claims 12 and 23 depend from claim 1 and contain the same novel and inventive limitations as claims 1 and 16. As noted above, the Afek reference does not disclose coordination between the RRM and the AQM. The Gupta reference does not supply the missing limitations in claims 1 and 16. This being the case, the Applicant respectfully requests the allowance of claims 12 and 23.

Claims 14, 15, 24 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,748,901 to Afek et al, in view of US Patent No. 6,556,578 B1 to Silberschatz et al. The Applicant has amended claims 1 and 16 to better define the intended scope of the claimed invention and respectfully traverses the rejection of these claims.

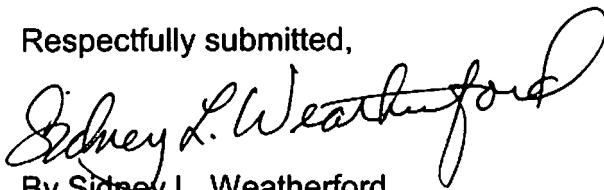
Claims 14, 15, 24 and 25 depend from claims 1 and 16 respectively and contain the same novel and inventive limitations as claim 1 and 16. As noted above, the Afek reference does not disclose coordination between the RRM and the AQM. The Gupta reference does not supply the missing limitations in claims 1 and 16. This being the case, the Applicant respectfully requests the allowance of claims 14, 15, 24 and 25.

**CONCLUSION**

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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Date: September 30, 2008

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